

REVIEWS.

Beccari's American Palms

Le Palme Americane della Tribu delle Corypheeae. Odoardo Beccari. (Extracted from *Webbia*, vol. 2, Florence, 1907.)

In this valuable monograph Professor Beccari presents the results of many years investigation of palms and his work will be of immense interest and great assistance to students of these plants. In the tribe *Corypheeae*, discussed in this volume, the American species are included in the following genera :

1. *Sabal* Adans. In this genus he recognizes eighteen species distributed from North Carolina to Porto Rico and Guatemala. He divides the genus into four series according to the size and shape of the fruit. Our observations indicate that the size of the fruit is not a good character to use, inasmuch as it varies greatly ; the shape of the fruit is, however, apparently constant. He properly, in my opinion, declines to accept the genus *Inodes* Cook, which has as its only available character a tall upright trunk rather than the short and mostly subterranean one of *S. glabra* (Mill.) Sargent, the type species. From my knowledge of these trees in the field, I conclude that he has recognized one or two species too many. *Sabal Schwarzii* (Cook) Beccari, of Florida, has no chance to be specifically distinct from *Sabal Palmetto* (Walter) Lodd.; *Sabal Palmetto bahamensis* does not differ sufficiently from the type, if at all, to be entitled to recognition in nomenclature ; *Sabal florida* Beccari, from Cuba, differs slightly from *S. Palmetto* in that the branchlets of the inflorescence are thicker, but the flowers, according to our dissections, are essentially identical. No mention is made of the Jamaica *Sabal*, very common in parts of that island, and sometimes attaining a height of 25 meters ; its flowers are like those of *Sabal parviflora* Becc. of southern Cuba.

2. *Serenoa* Hook. f. This consists entirely of *S. serrulata* (Michx.) Hook. f., of the southern United States.

3. *Brahea* Mart. Here four species are recognized, three of them Mexican and one from San Salvador.

4. *Acoclorhappe* Wendl. This generic name, published without a type in 1879, and therefore a hyponym, must give way to the generic name *Paurotis* Cook, Mem. Torrey Club 12 : 21. 1902, not mentioned by Professor Beccari. He recognizes two species, one from Cuba, the other from Florida, which do not seem to us to be distinct, and his descriptions call only for differences in the foliage. The genus is made up of the following elements : (a) *Copernicia Wrightii* Griseb. & Wendl., from Cuba ; (b) *Serenoa arborescens* Sarg., from Florida ; and (c) *Paurotis androsana* Cook, from the Bahamas. In my opinion these represent but one species, and the oldest name for it is *Wrightii*.

5. *Erythea* S. Wats. Four species are recognized from northern Mexico and Lower California.

6. *Copernicia* Mart. Nine species are recognized, five of them from South America and four from Cuba, including a proposed *C. Curtissii* from the Isle of Pines, which differs very slightly from the well-known *C. hospita* Mart. In this connection it is to be hoped that some light may be thrown on the record by Grisebach for the island of Jamaica of *Copernicia tectorum* Mart., otherwise known only from Venezuela, though erroneously attributed by Grisebach to Hayti. Careful search in Jamaica by Mr. Harris and by me has hitherto failed to reveal the presence there of any species of this genus, though it is possible that one may yet be found there. Professor Beccari evidently did not completely understand Dr. Morong's descriptions of *Copernicia alba* and *Copernicia rubra* from Paraguay, in Ann. N. Y. Acad. Sci. 7 : 245, or he might have used one of these names for the plant he proposes as *C. australis*, even if they are not specifically distinct.

7. *Washingtonia* Wendl. In this genus of southern California, Lower California, and Sonora, the three previously published species are recognized, together with two additional varieties, although he regards *W. Sonorae* as dubious and to be compared with *W. robusta*. He does not cite the equivalent names under *Neowashingtonia*, proposed some years ago by Mr. Sudworth, and makes no mention of *Washingtonia* Wendl. being a homonym ; it is a homonym, however, and a revertible one.

8. *Pritchardia* Seem. & Wendl. To this genus, which has eight recognized species in the Pacific islands (*P. pacifica* Seem. & Wendl. the type), Professor Beccari joins *Colpothrinax Wrightii* Griseb. & Wendl. of Cuba. We do not believe that this disposition of the Cuban tree can be satisfactorily maintained, notwithstanding the apparently slight generic differences shown by the fruit.

9. *Rhapidophyllum* Wendl. consists wholly of *R. Hystrix* (Fraser) Wendl. of the southeastern United States.

10. *Trithrinax* Mart. consists of five species from southern Brazil, eastern Bolivia, Paraguay, and the Argentine Republic.

11. *Acanthorhiza* Wendl. Two species are recognized, one from southern Mexico, the other from Panama, Costa Rica, and Nicaragua.

12. *Hemithrinax* Hook. f. consists wholly of *H. compacta* (Griseb.) Hook. f. from Cuba, known only from its original collection by Charles Wright.

13. *Thrinax* Sw. This is probably the most difficult of the American palm genera to understand, inasmuch as the foliage of most species is very similar and the differences in flowers and fruit are very slight. Professor Beccari accepts ten species, four of which he describes as new from Cuba, and discusses three dubious species. *T. microcarpa* Sarg., of Florida, *T. keyensis* Sarg., of Florida, *T. ponceana* Cook, of Porto Rico, and *T. bahamensis* Cook, of the Bahamas, I have studied in the field and regard them as one; *T. punctulata* Beccari, of Cuba, is very closely related, if not to be included in this aggregate. *T. tessellata* Beccari, from Jamaica (erroneously cited in Professor Beccari's key to the species as from Cuba) seems very distinct. *T. parviflora* Sw., of Jamaica, the type species, has very close congeners in *T. floridana* Sarg., of Florida, and *T. Wendlandiana*, of Cuba. *Thrinax excelsa* Lodd., as described by Grisebach, from Jamaica, is abundant on that island and distinct from *T. parviflora*, to which it is doubtfully referred by Beccari.

14. *Coccothrinax* Sarg. This genus, very distinct from *Thrinax* by the grooved endosperm of the fruit, has as synonyms *Thrincoma* Cook and *Thringis* Cook. Professor Beccari admits thir-

teen species, making his primary division of the genus on the number of the segments of the leaf and their relative length to the undivided part, a character which fails altogether in life, the leaves of young plants of species of this genus being often quite different from those borne by old trees, as may be readily seen in the Bahamas and in Jamaica. *C. argentea* (Lodd.) Sarg., the oldest species included in the genus, is restricted by Beccari to the island of Santo Domingo, and, according to him, little is known of it at the present time. In my studies I have been unable to satisfy myself as to the origin of the plant listed by Loddiges as *Thrinax argentea*, and I am not clear from Professor Beccari's discussion of the subject that it really came from that island. The Index Kewensis attributes it to Panama. On the other hand, the plant described by Professor Sargent from Florida as *C. jucunda* in 1899, and which, from my observation, has a wide range in the West Indies, throughout the Bahamas to the island of Culebra and to Jamaica, is more likely to be the true *T. argentea*. I am also unable to separate specifically from this species, the *C. Garberi* (Chapm.) Sarg., of southern Florida, as it seems to differ only in being smaller. In the collections made by Mr. Nash in the pine forests of the mountains of Hayti there is a species of *Coccothrinax* which appears to be wholly distinct from anything recorded by Professor Beccari.

15. *Cryosophila nana* (H.B.K.) Blume, from southern Mexico, is regarded as dubious.

The volume will stimulate the study of American palms. A considerable number of the species are as yet known only from single collections of herbarium specimens and further collections will be needed, together with field observations and the study of living plants in conservatories, to establish them as valid. Meanwhile we thank Professor Beccari for his important contribution.

N. L. BRITTON.